

VNI 108 PON ONU SoC

XGSPON (10G/10G)/XGPON (10G/2.5G) ONU

OVERVIEW

Vulcan's VN1108 is a highly integrated single-chip, high performance ONU SoC chip with support for XGSPON/XGPON that provides feature rich and cost-effective solutions for FTTH and FTTR applications. The dedicated 8mmx8mm package is designed for small footprint applications e.g. ONU PON Stick.

VN1108 includes XG(S)PON ONU MAC and integrates dual burst mode SERDES. It enables single VN1108 ONU supporting fiber-cut protection.

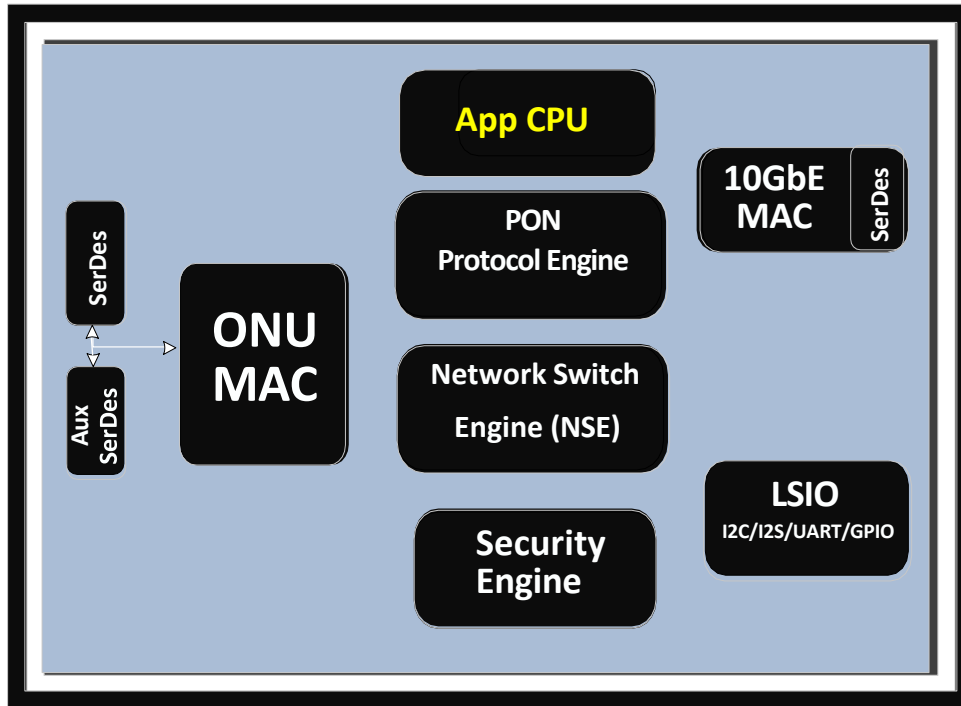
VN1108 also comes with UNI Ethernet interface that supports 1G (SGMII), 2.5G (HSGMII) and 10Gbps XFI/USXGMII speed grade.

VN1108 has a powerful 64bit CPU with 32KB+32KB Cache and 1MB internal SRAM. It's available for applications including running OMCI stack in SFU and ONU Stick product.

MAIN FEATURES

- ITU-T Standard compliance
- Multi-speed XGSPON/XGPON MAC
- Integrate two multi-rate burst-mode PON SerDes enabling interfaces to PON ONU optical transceivers for protection.
- 800MHz 64-bit RISC-V APP CPU
- Double Precision FPU
- 32KB+32KB Cache, 1MB SRAM
- Security Island with PUF, OTP, TRNG, Crypto Engine
- Upstream Data Report Mechanism
- Support High-Speed Interfaces
 - 10G/2.5G/1G UNI Ethernet Port
- Power consumption ~1W

BLOCK DIAGRAM



VN1108 Block Diagram

APPLICATIONS

- XGSPON/XGPON SFU ONU
- XGSPON/XGPON ONU Stick

ORDER INFORMATION

Part Number	Description	Package Info	Ambient Temperature
VN1108-B002	XGSPON/XGPON ONU MAC	8mm x 8mm, 225-ball FCCSP, 0.5mm ball pitch	-40°C – 85°C